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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/830,703

DATE: 08/30/2001

TIME: 06:40:43

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\08302001\I830703.raw

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4 <110> APPLICANT: Biofrontera Pharmaceuticals AG
5     Lubbert, Hermann
7 <120> TITLE OF INVENTION: TRANSGENIC ANIMAL MODEL FOR
8     NEURODEGENERATIVE DISEASES
10 <130> FILE REFERENCE: STERN1.001APC
12 <140> CURRENT APPLICATION NUMBER: 09/830,703
13 <141> CURRENT FILING DATE: 2001-04-26
15 <150> PRIOR APPLICATION NUMBER: EP 99116766.9
16 <151> PRIOR FILING DATE: 1999-08-30
18 <160> NUMBER OF SEQ ID NOS: 34
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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23 <211> LENGTH: 3255
24 <212> TYPE: DNA
25 <213> ORGANISM: Mus musculus
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30 cggtgaccat gatagtgttt gtcaggttca actccagcta tggcttccca gtggaggtcg 180
31 attctgacac cagcatcttg cagctcaagg aagtgggtgc taagcgacag ggggttccag 240
32 ctgaccagct gcgtgtgatt ttgcccggga aggagcttcc gaatcacctg acggttcaaa 300
33 actgtgacct ggaacaacag agtattgtac acatagtaca gagaccagcg aggagaagtc 360
34 atgaaacaaa tgcattctgga ggggacgaac ccagagcac ctcagagggc tccatatggg 420
35 agtccaggag cttgacaacga gtggacctga gcagccatac cctgccggtg gactctgtgg 480
36 ggctggcggt cattctggac acagacagta agagggattc agaagcagcc agaggtccag 540
37 ttaaaccacac ctacaacagc tttttcatct actgcaaagg cccctgccac aaggtccagc 600
38 ctggaaagct ccgagttcag tgtggcacct gcaaacaagc aaccctcacc ttggcccagg 660
39 gcccatcttg ctgggacgat gtcttaattc caaacgggat gagtgggtgag tgccagtcctc 720
40 cagactgccc tggaaaccaga gctgaatttt tctttaaatg tggagcacac ccaacctcag 780
41 acaaggacac gtcggttagct ttgaacctga tcaccagcaa caggcgacgc atcccttgca 840
42 tagcgtgcac agatgtcagg agccctgtcc tggctcttcca gtgtaaccac cgtcacgtga 900
43 tctgtttgga ctgtttccac ttgtattgtg tcacaagact caacgatcgg cagtttgtcc 960
44 acgatgtcca acttggttac tccctgcccgt gtgtagctgg ctgtcccaac tccctgatta 1020
45 aagagctcca tcacttcagg atccttggag aagagcagta cactaggtac cagcagtatg 1080
46 ggcccgagga atgcgtgctg caaatgggag gtgtgctgtg ccccgctcct ggctgtggag 1140
47 ctggactgct acctgaacag ggccagagga aagtcacctg cgaagggggc aacggcctgg 1200
48 gctgcggggt tgttttctgc cgggactgta aggaagcata ccatgaaggg gattgcgact 1260
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53 gagatcactg gtttgacgtg tagagagaga tgtcacttgg ccctggacgc acaacctcaa 1560
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56 tagggcacc acagaaaacc acagcaccgc ctggccccag ggggaggagg cactttcagc 1740
57 ctctggctca ctogaatgtc agagcttaga tgagggtgca cctttggttt ggattctgta 1800
58 gaagccatga gtgaggtggg aagtgttttc cagggttgtt gccacgcctc gggtaagtaa 1860

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59 cacctctgag gattctcaga agcacacttg agatctgagg aacgctgctc tcatgtagta 1920
60 atcatctatt cccaaagggc cccctgcagt agtcaaaact atttgtttat cccccaaat 1980
61 cctatcttta caaatgggtg tgatgagatt acaaccctc tgtgtactaa tcagcttata 2040
62 aaccaagtga gaacctagga aagctaattg gatggcagac tgcttaaata gcagggagga 2100
63 ctcaagaagg aaacctactt ccgttcgttt cattatctgc aacttttaga agaaatgatc 2160
64 tttttttccc cctgaaaaga taacaaagtc tgcaatttgg tttggagtat tctactgca 2220
65 gcttggaagt ttagcttcac tgtgaattta acagagaaag tgctataaa gggggcggtt 2280
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67 ttatagaagg agcatccctc gaccatctga atgagagtat gctgacccc ttccaccaca 2400
68 agtggggaca cctctgcata tctgctccct cctctgctgt taagccccag ggagccccat 2460
69 ccaccagtg gtcctacaga cagggcaata cacacacacc aagatagcct tcagatcaac 2520
70 atgcatcaca ctcaagtgtt aatctttcaa ggttttcttt tctttttcct gttttttatt 2580
71 tgttttgctt ttgctttttt tttttttttt tttgggtgtg gtggggctac caaacttgag 2640
72 gcttagagct aaaaatcata tagaaatgat gttatcttgt ggtgtgagga aaggccagct 2700
73 ggcctaagtt cacacttttg tcccagtggc cctagactcc acccagccag ctcccaaaa 2760
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75 ccatacttgt gcttgccctc gctccttcc acaccgtgt gacgtaatcg cattgggaag 2880
76 ccaggacaat gtttgcgtgt ctgctttggg taaagggact cctgaagct ctgtggctct 2940
77 ccagtatggt cctttttcct tctaacaga tgcatatgtt ttcttcagaa tacaatagt 3000
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85 <211> LENGTH: 1459
86 <212> TYPE: DNA
87 <213> ORGANISM: Mus musculus
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91 cgggcgcag tgcccgctg ggtccttctc gaccgcagc caccaccgc ccgtgacca 120
92 tgatagtgtt tgtcagggtc aactccagct atggttccc agtggaggtc gattctgaca 180
93 ccagcatctt gcagctcaag gaagtgggtg ctaagcgaca gggggttcca gctgaccagc 240
94 tgcgtgtgat ttttgccggg aaggagcttc cgaatcacct gacggttcaa aactgtgacc 300
95 tggaacaaca gagtattgta cacatagtac agagaccagc gaggagaagt catgaaacaa 360
96 atgcatctgg aggggacgaa cccagagca cctcagagg ctccatattg ggtccagga 420
97 gcttgacacg agtggacctg agcagccata cctgcccgt ggactctgtg gggctggcg 480
98 tcattctgga cacagacagt aagagggatt cagaagcagc cagaggtcca gcagttaaac 540
99 ccacctacaa cagctttttc atctactgca aaggccctg ccacaaggtc cagcctggaa 600
100 agtcccagtg tcagtgtggc acctgcaaac aagcaacctt caccttgcc cagggcccat 660
101 cttgctggga cgatgtctta attccaaacc ggatgagtgg tgagtgcag tctccagact 720
102 gccctggaac cagagctgaa tttttcttta aatgtggagc acaccaacc tcagacaagg 780
103 acacgtcggt agctttgaac ctgatacca gcaacaggcg cagcatccct tgcatagcgt 840
104 gcacagatgt cagtcattct cctctgtcat ctgggtgcctc cgtgtggact cggcctcatc 900
105 tccactgaac cttgtttctt aggaactgtg aataggctgt cacctcctac tgagaacaag 960
106 gcagcttctg gtctcttggg ttcttggctt ccaacggcag cattgactgt acacccttca 1020
107 gtctaccaa cccattacc tgggtgattt ctttaccgct tagcttctcc aagatgccta 1080
108 ttccacaca cagtttcttg tcttcccat cccccatag gtttatgcg atgagtaagc 1140
109 accgcacctc atgagtttgt gcttctgata caagacttcc tgggatcccc gcttgagccc 1200

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110 tagaatcccc tggaaactggg ttcagtcacc tatcttcaat agcctctttt aaaagtgagt 1260
111 tcttgggctg gtgagatggc tcagtgggta agagcaccg actgctcttc cgaagtccag 1320
112 agttcaaaat cccagcaacc acatgggtggc tcacaacccat ccgtaacaag atctgactcc 1380
113 ctcttctggt gtgtctgaag acagctacag tgtacttaca taaaataata aataaatctt 1440
114 aaaaaaaaaa aaaaaaaaaa                                     1459

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116 <210> SEQ ID NO: 3

117 <211> LENGTH: 857

118 <212> TYPE: DNA

119 <213> ORGANISM: Mus musculus

121 <400> SEQUENCE: 3

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123 cgtagggtcct tctcgaccgc cagccaccac ccgcccgggt accatgatag tgtttgtcag 120
124 gttcaactcc agctatggct tcccagtgga ggctgattct gacaccagca tcttgacagt 180
125 caaggaagtgt gttgctaagc gacagggggg tccagctgac cagctgctgt tgatttttgc 240
126 cgggaaggag cttccgaatc acctgacggg tcaaaactgt gacctggaac aacagagtat 300
127 tgtacacata gtacagagac cagggaggag aagtcatgaa acaaatgcat ctggagggga 360
128 cgaacccagc agcacctcag agggctccat atgggagtcc aggagcttga cacgagtgga 420
129 cctgagcagc cataacctgc cgggtggactc tgtggggctg gcggtcattc tggacacaga 480
130 cagtaagagg gattcagaag cagccagagg tccagcagtt aaaccacact acaacagctt 540
131 tttcatctac tgcaaaggcc cctgccacaa ggtccagcct ggaaagctcc gagttcagt 600
132 tggcacctgc aaacaagcaa cctcacctt ggcccagggc ccattcttgc gggacgatgt 660
133 cttaattcca aaccggatga gtggtgagtg ccagtctcca gactgcctg gaaccagagc 720
134 tgaatttttc tttaaagtgt gagcaccccc aacctcagac aaggacacgt cggtagcttt 780
135 gaacctgatc accagcaaca ggcgcagcat cccttgcata gcgtgcacag atgtcagggt 840
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138 <210> SEQ ID NO: 4

139 <211> LENGTH: 464

140 <212> TYPE: PRT

141 <213> ORGANISM: Mus musculus

143 <400> SEQUENCE: 4

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146 Val Asp Ser Asp Thr Ser Ile Leu Gln Leu Lys Glu Val Val Ala Lys
147 20 25 30
148 Arg Gln Gly Val Pro Ala Asp Gln Leu Arg Val Ile Phe Ala Gly Lys
149 35 40 45
150 Glu Leu Pro Asn His Leu Thr Val Gln Asn Cys Asp Leu Glu Gln Gln
151 50 55 60
152 Ser Ile Val His Ile Val Gln Arg Pro Arg Arg Arg Ser His Glu Thr
153 65 70 75 80
154 Asn Ala Ser Gly Gly Asp Glu Pro Gln Ser Thr Ser Glu Gly Ser Ile
155 85 90 95
156 Trp Glu Ser Arg Ser Leu Thr Arg Val Asp Leu Ser Ser His Thr Leu
157 100 105 110
158 Pro Val Asp Ser Val Gly Leu Ala Val Ile Leu Asp Thr Asp Ser Lys
159 115 120 125
160 Arg Asp Ser Glu Ala Ala Arg Gly Pro Val Lys Pro Thr Tyr Asn Ser
161 130 135 140
162 Phe Phe Ile Tyr Cys Lys Gly Pro Cys His Lys Val Gln Pro Gly Lys

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163 145          150          155          160
164 Leu Arg Val Gln Cys Gly Thr Cys Lys Gln Ala Thr Leu Thr Leu Ala
165          165          170          175
166 Gln Gly Pro Ser Cys Trp Asp Asp Val Leu Ile Pro Asn Arg Met Ser
167          180          185          190
168 Gly Glu Cys Gln Ser Pro Asp Cys Pro Gly Thr Arg Ala Glu Phe Phe
169          195          200          205
170 Phe Lys Cys Gly Ala His Pro Thr Ser Asp Lys Asp Thr Ser Val Ala
171          210          215          220
172 Leu Asn Leu Ile Thr Ser Asn Arg Arg Ser Ile Pro Cys Ile Ala Cys
173 225          230          235          240
174 Thr Asp Val Arg Ser Pro Val Leu Val Phe Gln Cys Asn His Arg His
175          245          250          255
176 Val Ile Cys Leu Asp Cys Phe His Leu Tyr Cys Val Thr Arg Leu Asn
177          260          265          270
178 Asp Arg Gln Phe Val His Asp Ala Gln Leu Gly Tyr Ser Leu Pro Cys
179          275          280          285
180 Val Ala Gly Cys Pro Asn Ser Leu Ile Lys Glu Leu His His Phe Arg
181          290          295          300
182 Ile Leu Gly Glu Glu Gln Tyr Thr Arg Tyr Gln Gln Tyr Gly Ala Glu
183 305          310          315          320
184 Glu Cys Val Leu Gln Met Gly Gly Val Leu Cys Pro Arg Pro Gly Cys
185          325          330          335
186 Gly Ala Gly Leu Leu Pro Glu Gln Gly Gln Arg Lys Val Thr Cys Glu
187          340          345          350
188 Gly Gly Asn Gly Leu Gly Cys Gly Phe Val Phe Cys Arg Asp Cys Lys
189          355          360          365
190 Glu Ala Tyr His Glu Gly Asp Cys Asp Ser Leu Leu Glu Pro Ser Gly
191          370          375          380
192 Ala Thr Ser Gln Ala Tyr Arg Val Asp Lys Arg Ala Ala Glu Gln Ala
193 385          390          395          400
194 Arg Trp Glu Glu Ala Ser Lys Glu Thr Ile Lys Lys Thr Thr Lys Pro
195          405          410          415
196 Cys Pro Arg Cys Asn Val Pro Ile Glu Lys Asn Gly Gly Cys Met His
197          420          425          430
198 Met Lys Cys Pro Gln Pro Gln Cys Lys Leu Glu Trp Cys Trp Asn Cys
199          435          440          445
200 Gly Cys Glu Trp Asn Arg Ala Cys Met Gly Asp His Trp Phe Asp Val
201          450          455          460
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205 <211> LENGTH: 262
206 <212> TYPE: PRT
207 <213> ORGANISM: Mus musculus
209 <400> SEQUENCE: 5
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212 Val Asp Ser Asp Thr Ser Ile Leu Gln Leu Lys Glu Val Val Ala Lys
213          20          25          30
214 Arg Gln Gly Val Pro Ala Asp Gln Leu Arg Val Ile Phe Ala Gly Lys

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215          35          40          45
216 Glu Leu Pro Asn His Leu Thr Val Gln Asn Cys Asp Leu Glu Gln Gln
217          50          55          60
218 Ser Ile Val His Ile Val Gln Arg Pro Arg Arg Arg Ser His Glu Thr
219 65          70          75          80
220 Asn Ala Ser Gly Gly Asp Glu Pro Gln Ser Thr Ser Glu Gly Ser Ile
221          85          90          95
222 Trp Glu Ser Arg Ser Leu Thr Arg Val Asp Leu Ser Ser His Thr Leu
223          100          105          110
224 Pro Val Asp Ser Val Gly Leu Ala Val Ile Leu Asp Thr Asp Ser Lys
225          115          120          125
226 Arg Asp Ser Glu Ala Ala Arg Gly Pro Ala Val Lys Pro Thr Tyr Asn
227          130          135          140
228 Ser Phe Phe Ile Tyr Cys Lys Gly Pro Cys His Lys Val Gln Pro Gly
229 145          150          155          160
230 Lys Leu Arg Val Gln Cys Gly Thr Cys Lys Gln Ala Thr Leu Thr Leu
231          165          170          175
232 Ala Gln Gly Pro Ser Cys Trp Asp Asp Val Leu Ile Pro Asn Arg Met
233          180          185          190
234 Ser Gly Glu Cys Gln Ser Pro Asp Cys Pro Gly Thr Arg Ala Glu Phe
235          195          200          205
236 Phe Phe Lys Cys Gly Ala His Pro Thr Ser Asp Lys Asp Thr Ser Val
237          210          215          220
238 Ala Leu Asn Leu Ile Thr Ser Asn Arg Arg Ser Ile Pro Cys Ile Ala
239 225          230          235          240
240 Cys Thr Asp Val Ser His Leu Pro Leu Ser Ser Gly Ala Ser Val Trp
241          245          250          255
242 Thr Arg Pro His Leu His
243          260
246 <210> SEQ ID NO: 6
247 <211> LENGTH: 250
248 <212> TYPE: PRT
249 <213> ORGANISM: Mus musculus
251 <400> SEQUENCE: 6
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255          20          25          30
256 Arg Gln Gly Val Pro Ala Asp Gln Leu Arg Val Ile Phe Ala Gly Lys
257          35          40          45
258 Glu Leu Pro Asn His Leu Thr Val Gln Asn Cys Asp Leu Glu Gln Gln
259          50          55          60
260 Ser Ile Val His Ile Val Gln Arg Pro Arg Arg Arg Ser His Glu Thr
261 65          70          75          80
262 Asn Ala Ser Gly Gly Asp Glu Pro Gln Ser Thr Ser Glu Gly Ser Ile
263          85          90          95
264 Trp Glu Ser Arg Ser Leu Thr Arg Val Asp Leu Ser Ser His Thr Leu
265          100          105          110
266 Pro Val Asp Ser Val Gly Leu Ala Val Ile Leu Asp Thr Asp Ser Lys

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